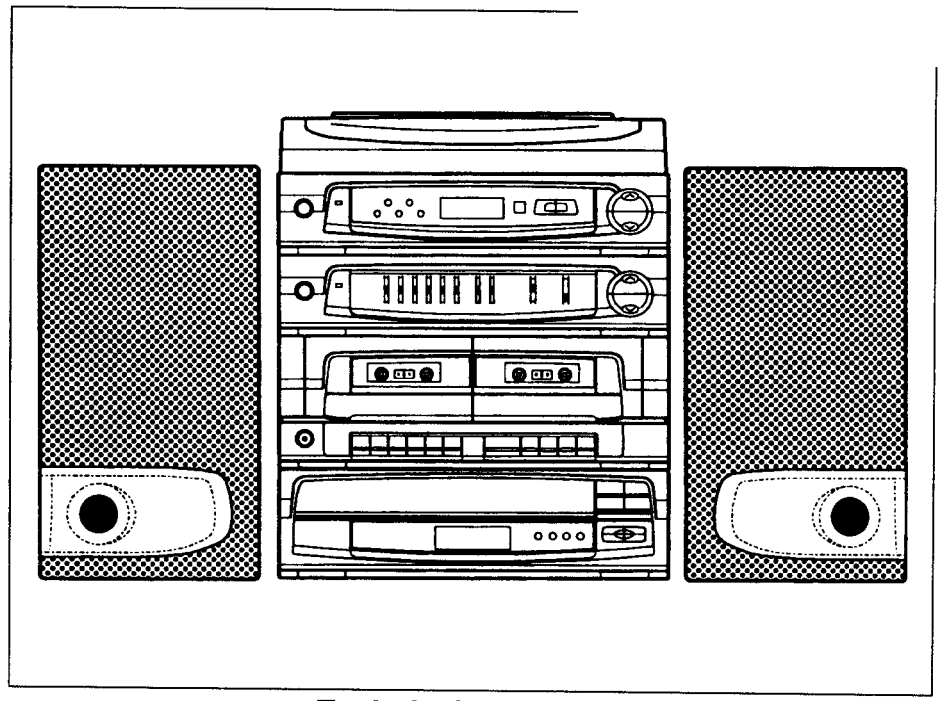
Quelle TECHNISCHER KUNDENDIENST

Technische Unterlage

HiFi-Musikcenter

VTC-CD 1075

mit 3fach-CD-Wechsler, Plattenspieler, Fernbedienung und Lautsprecherboxen



*** weitgehend baugleich mit QBNr.107 744 VTC-CD10652**

```
UTS-Nr.:          999          QUELLE
Best.Nr.:         1063718/01
Ger.Bez.:         UNIVERSUM-MIDI-ANLAGE

GKz:                G  GERAET
WGT:              652  POWERPACK
KD-Sektor:          R  RUNDFUNK
BaumNr.:           00  KEIN DIAGNOSEBAUM VORHANDEN
Klassierung:      STK  STEREOKOMBINATION
IFW-FehlerGru.:   205  RDF.,VERST.,TB.,PHONO,CD,CB
Type/Privileg/Universum.Nr VTC-CD1075
Beschreibung
VK-Preis: 349.00

Serviceart:              01  QUELLE-TKD
Garantie fuer Kunden     06 Monate
Sondervereinbarungen:     0  SIEHE SERVICEART

Garantiereparatur      9999999  QUELLE
```

Technische Daten VTC-CD 1075

Netzanschluß	230 V ~ +6/-10% 50 Hz
Leistungsaufnahme (Bereitschaft)	10 Watt

Verstärkerteil

Maximale Ausgangsleistung	60 (2 x 30 Watt)
Lautsprechermindestimpedanz	(Anschlußwert) 8 Ohm
Übertragungsbereich	von 40 Hz. - 16 kHz, ±1,5 dB
FM-Bereich (UKW)	87.5 - 108 MHz
MW-Bereich	525 - 1650 kHz

Plattenspieler

Riemenantrieb, automatische Endabschaltung mit Keramiksystem.

Geschwindigkeit:	33 1/3 und 45 U/min

Tonbandteil

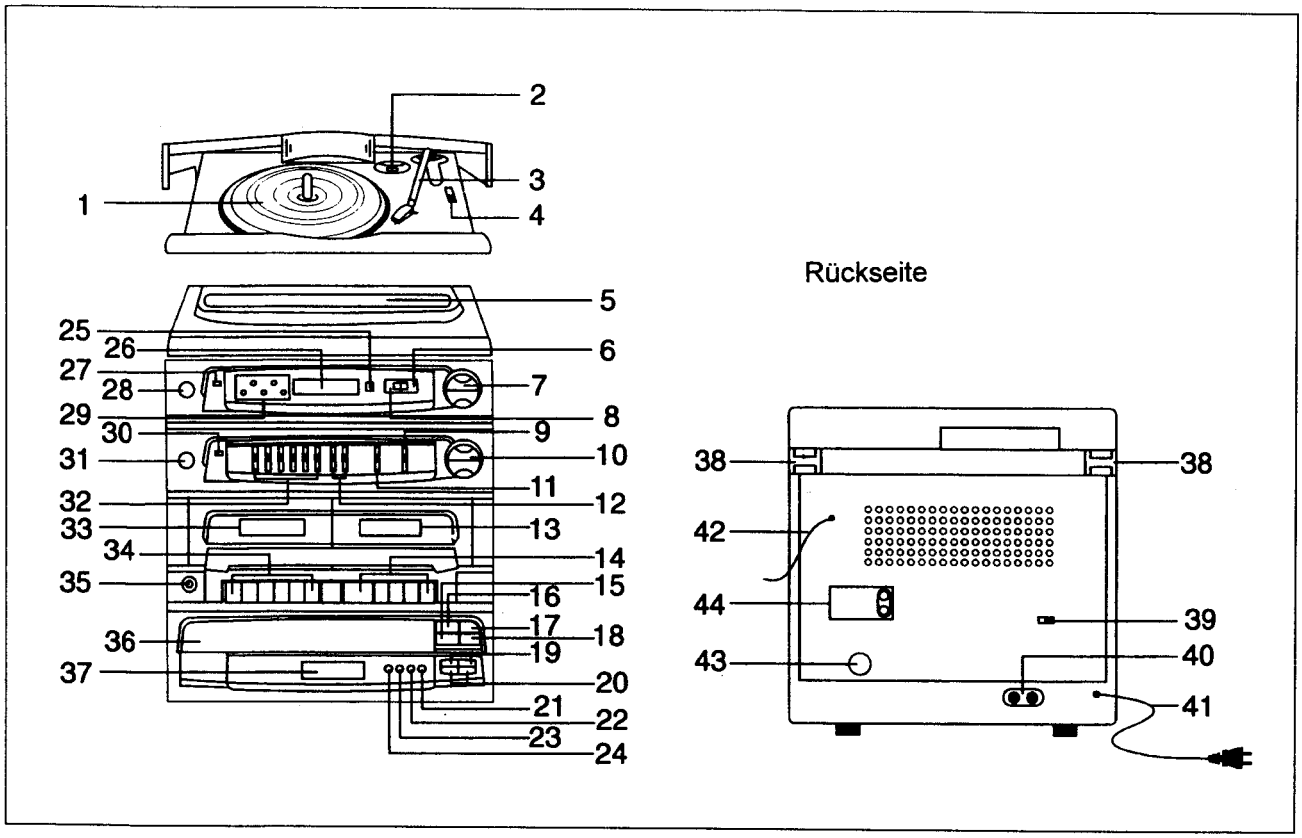
Übertragungsbereich Aufnahme und Wiedergabe

Geschwindigkeitsabweichung	1,5 %
Tonband	Normal-Cassetten (-8 dB) 80 Hz - 10.000 Hz
Geräuschspannungsabstand	40 dB
Tonband	Normal-Cassetten

CD-Spieler

Optischer Tonabnehmer:	3-Strahlen-Laser
Fehlerkorrektur:	CIRC
D/A-Umwandler:	16-Bit-linear
Filter:	Digitalfilter + LC Filter der 7. Ordnung
Abmessungen ca.	(B) 36, (H) 43,5, (T) 34 cm

Bedienungselemente



Bedienungselemente und Funktionen

Plattenspieler

(1) Plattenspielerteller
(2) Adapter für 17 cm-Platten mit großem Mittelloch
(3) Rohrtonarm, verwindungsfrei und resonanzarm, Abtastsystem, Tonarm-Transportsicherung mit Tonarmstütze
(4) Geschwindigkeitswahlschalter 33 1/3 oder 45 U/min
(5) Plattenspielerabdeckhaube
(6) **MEMORY** = Speichertaste
(7) **TUNING UP/DOWN** = Senderabstimmtaste zu den höheren/ niedrigeren Frequenzen,
(8) **AUTO SEEK** = Automatischer Sendersuchlauf
(9) **BAND** = Bereichswahl **FM STEREO** (FM = UKW-Stereo), **FM** (FM = UKW-Mono) und **MW** (Mittelwelle)
HI-SPEED-DUBBING = Wahl der Kopiergeschwindigkeit
(10) **VOLUME** = Regeln der Lautstärke
UP = Lautstärke lauter
DOWN = Lautstärke leiser
(11) **FUNCTION** = Schalter zum Umschalten auf **TAPE** (Cassette), **PHONO** (Plattenspieler), **RADIO** und **CD**-Wechsler
(12) **BALANCE** = Lautstärkeausgleichsregler links/rechts
(13) Cassettenfachdeckel **DECK A**
(14) **Laufwerktasten für DECK A (nur für Wiedergabe)**
PAUSE = Pause Unterbrechen der Wiedergabe
STOP/EJ = Beenden der Wiedergabe, Öffnen des Cassettenfachdeckels
F.FWD = Schneller Vorlauf
REW = Schneller Rücklauf
PLAY = Cassetten-Wiedergabe

CD-Spieler

(15) **OPEN/CLOSE** = Zum Öffnen und Schließen des CD-Plattenfaches
(16) **PLAY/PAUSE** = Starten der Wiedergabe und Wiedergabeunterbrechung
(17) **STOP** = Beenden der CD-Wiedergabe
(18) **DISC SELECT** = Wahl des CD-Plattenfachs
(19) **I◀◀ SKIP** = Titelwahl rückwärts
▶▶I SKIP = Titelwahl vorwärts
(20) ◁◁ **SEARCH** = Suchlauf rückwärts
▷▷ **SEARCH** = Suchlauf vorwärts
(21) **INTRO** = Kurzes Anspielen aller CD-Titel
(22) **PROGRAM** = Speichern der Abspielreihenfolge
(23) **REPEAT** = Wahl der Wiederholfunktion
(24) **RANDOM** = Wiedergabe in zufälliger Reihenfolge
(25) **REMOTE SENSOR** = Fernbedienungsempfänger
STAND BY = Bereitschaftsanzeige
(26) Tuner-Display = Zur digitalen Frequenzanzeige
(27) **POWER** = Funktionsanzeige
(28) **POWER** = Betriebsschalter Ein/Aus
(29) **PRESET STATION** = Senderspeichertasten **1 - 5**
(30) **STEREO** = Leuchtanzeige bei UKW-Stereoempfang
(31) **BASS BOOST** = Baßbetonte Wiedergabe
(32) **3 BAND GRAPHIC EQUALIZER** = Klangregelung für den rechten/linken Kanal
(33) Cassettenfachdeckel **DECK B**
(34) **Laufwerktasten für DECK »B« (für Aufnahme und Wiedergabe)**
PAUSE = Pause, Unterbrechen der Wiedergabe
STOP/EJ = Beenden der Wiedergabe, Öffnen des Cassettenfachdeckels
F.FWD = Schneller Vorlauf
REW = Schneller Rücklauf
PLAY = Cassetten-Wiedergabe
RECORD = Aufnahmetaste
(35) **PHONES** = Kopfhörerbuchse 3,5 mm Ø Klinke
(36) CD-Schublade
(37) CD-Spielerdisplay

Rückseite

(38) Halter für Abdeckhaube
(39) **BEAT CUT 1 - 2** = Umschalten der Vormagnetisierung
(40) **EXT. SPEAKER** = Lautsprecheranschlußbuchsen
R = Rechter Kanal
L = Linker Kanal
(41) Netzanschlußkabel 230 V~/50 Hz
(42) **FM ANT.** = UKW-Wurfantenne
(43) ➡ = Transportsicherung
(44) Batteriefach für eine 9 V Blockbatterie

ABGLEICH

FM SECTION

STEP	ALIGNMENT FREQ.	TEST EQUIPMENT	SIGNAL-IN	SIGNAL-OUT	ADJUSTMENT	REMARK
1	IF 10.7MHz	(1)FM IF SWEEP GENERATOR. (2)ALIGNMENT OSCILLOSCOPE (3)POWER SUPPLY	INJECT THE IF SWEEP SIGNAL THROGH 5pf CAPACITOR TO POINT 2	SIGNAL ARE TAKEN OUT FROM POINT 4	ADJUST T102 AND T003 REPEAT TO GET BEST "S" CURVE AT 10.7MHz	(1)BAND SW.IN FM POSITION (2)VOL. CONTROL IN MIN. (3)TUNE TO HIGH END
2	108 MHz	(1)FM RF SWEEP GENERATOR (2)ALIGNMENT OSCILLOSCOPE (3)POWER SUPPLY (4)DVM	INJECT THE RF SIGNAL DIRECTLY TO POINT 1.	SAME AS STEP 1.	ADJUST L002 TO HAVE READING 7.0 +0.2V VT POINT.	SAME AS STEP 1.
3	87.5 MHz	SAME AS STEP 2.	SAME AS STEP 2	SAME AS STEP 1.	CHECK VOLTAGE AT VT TO BE 1.5 +/-0.15V	TUNE TO LOW END
4	REPEAT STEP 2,3 UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					
5	106 MHz	SAME AS STEP 2.	SAME AS STEP 2.	SAME AS STEP 1.	ADJUST TC001 TO GET MAX. OUTPUT	PRESS BUTTON TO 106MHz
6	90 MHz	SAME AS STEP 2.	SAME AS STEP 2.	SAME AS STEP 1.	ADJUST L003 TO GET MAX. OUTPUT.	PRESS BUTTON TO 90MHz.
7	REPEAT STEP 5,6 UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					
8	98MHz	(1)OSCILLOSCOPE (2)COUNTER	SIGNAL ARE TAKEN OUT FROM POINT 6.	ADJEST VR301 TO GET 19KHz +/-0.1 KHz AT POINT 6.	(1)BAND SW.IN FM STEREO POSITION (2)PRESS BUTTON TO 98MHz
9	98MHz	(1)FM RF STEREO GENERATOR (2)OSCILLOSCOPE (3)POWER SUPPLY	SAME AS STEP 2.	L,R SPEAKER OUTPUT.	CHECK SEPERATION AT SPEAKER OUTPUT	(1)BAND SW.IN FM STEREO POSITION (2)VOL.ADJUSTER (3)REF.ADJUSTER (4)EQ.BAL CONTROL AT CENTER POSITION

LW SECTION

STEP	ALIGNMENT FREQ	TEST EQUIPMENT	SIGNAL-IN	SIGNAL-OUT	ADJUST	REMARK
1	281KHz	(1)LW SWEEP GEN. WITH ANT (2)ALIGNMENT OSCILLOSCOPE (3)POWER SUPPLY	LET THE LW ANT COIL CLOSE TO LW GNE.ANTENNA.	TAKE OUT THE SIGNAL FROM POINT 4.	ADJUST TC004 TO HAVE 7.5V +/-0.1V AT POING.	(1)BAND SW.IN LW POSITION. (2)VOL.CONTROL AT MIN POSITION. (3)TUNE TO HIGH END.
2	146KHz	SAME AS STEP 1.	SAME AS STEP 1.	SAME AS STEP 1.	CHECK VOLTAGE AT VT POINT TO BE 0.9+/-0.1V	PRESS BUTTON TO LOW END.
3	REPEAT STEP 1,2 UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					
4	263KHz	SAME AS STEP 1.	SAME AS STEP 1.	SAME AS STEP 1.	ADJUST TC003 TO GET MAX. OUTPUT AT 263KHz	PRESS BUTTON TO 263KHz
5	164KHz	SAME AS STEP 1.	SAME AS STEP 1.	SAME AS STEP 1.	ADJUST L026 TO GET MAX. OUTPUT AT 164KHz	PRESS BUTTON TO 164KHz
6	REPEAT STEP 4,5 UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					

MW SECTION

STEP	ALIGNMENT FREQ.	TEST EQUIPMENT	SIGNAL-IN	SIGNAL-OUT	ADJUST	REMARK
1	450 KHz	(1)AM IF SWEEP GEN. WITH LOOP ANTENNA (2)ALIGNMENT OSCILLOSCOPE (3)POWER SUPPLY	LET THE MW ANT COIL CLOSE TO MW GEN. ANTENNA	TAKE OUT THE SIGNAL FROM POINT 4	ADJUST T101 T103 TO GET MAX.OUTPUT AT 450 KHz	(1)BAND SW. IN MW POSITION. (2)VOL.CONTROL AT MIN POSITION (3)TUNE TO HIGH END.
2	531 KHz (530 KHz FOR USA)	(1)MW SWEEP GEN WITH ANT. (2)ALIGNMENT OSCILLOSCOPE (3)POWER SUPPLY	SAME AS STEP 1.	SAME AS STEP 1.	ADJUST T028 TO HAVE 1.55V +/-0.2V AT VT POINT.	PRESS BUTTON TO LOW END.
3	1602 KHz (1610KHz FOR USA)	SAME AS STEP 2.	SAME AS STEP 1.	SAME AS SYEP 1.	CHECK TO HAVE 7.5V AT VT POINT	PRESS BUTTON TO HIGH END.
4	PEPEAT STEP 2,3 UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					
5	1404 KHz (1400 KHz FOR USA)	SAME AS STEP 2.	SAME AS STEP 1.	SAME AS STEP 1.	ADJUST TC002 TO GET MAX. OUTPUT AT 1404(1400)KHz	PRESS BUTTON TO 1404(1400)KHz
6	603 KHz (600 KHz FOR USA)	SAME AS STEP 2.	SAME AS STEP 1.	SAME AS STEP 1.	ADJUST L025 TO GET MAX.OUTPUT AT 603(600) KHz	PRESS BUTTON TO 603(600)KHz
7	REPEAT STEP 5,6 UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					

TAPE DECK SECTION

STEP	ALIGNMENT FREQ	TEST EQUIPMENT	SIGNAL-IN	SIGNAL-OUT	ADJUST	REMARK
1		(1)COUNTER (2)OSCILLOSCOPE (3)POWER SUPPLY.	TEST TAPE (STT-111W (OR MTT-111N) 3 KHz	SPEAKER OUTPUT.	ADJUST VR905 TO HAVE 3KHz +90/-10Hz AT SPEAKER OUTPUT.	(1)FUNCTION SW IN TAPE POSITION (2)VOL.ADJUSTED TO REF.OUTPUT. (3)EQ.CONTROL IN CENTER POSITION
2		SAME AS STEP 1.	TEST TAPE (STT-113W (OR MTT-113W) 6.3 KHz	SAME AS STEP 1.	ADJUST TAPE HEAD SCREW TO GET MAX. OUTPUT.	SAME AS STEP 1
3	PEPEAT STEP 1,2 FOR TAPE DECK A & B (OR 1 & 2) UNTIL NO FURTHER IMPROVEMENT CAN BE MADE.					

AC BIAS OSCILLATOR ALIGNMENT INSTRUCTION

TEST EQUIPMENT : (1) FREQUENTCY COUNTER.
(2) OSCILLOSCOPE.
(3) POWER SUPPLY.
(4) AC VOLTAGE METER.

STEP	SIGNAL-OUT	ADJUST/CHECK	MEASUREMENT	REMAKS
1	ERASE HEAD	ADJUST L289 OSC. COIL TO HAVE 52KHz +-0.2KHz	AC 20V RMS +-10% OR CURRENT 55MA +-15% IN ERASE HEAD	BEAT-CUT SW. IN OPEN OR POSITION 2.
2	ERASE HEAD	CHECK FREQUENCY COUNTER FREQUENCY TO HAVE 47.5KHz +-0.5KHz.	AC 20V RAS +-10% OR CURRENT 60MA +-15% IN ERASE HEAD.	BEAT-CUT SW. IN CLOSED OR POSITION 1.

TURNTABLE SPEED ADJUSTMENT

1) Set up the oscilloscope on the following condition.

- use COARSE to adjust the start point of time at the first coloum
- use NORMAL TRIGGER MODE.
- use DC MODE.
- Time div = 0.2sec
- Voltage div = 0.2V (probe 10)

2) Connect the oscillscope to CH1 on WCW9 PIN3 and Gnd on TP. GND.

3) Power on.

4) Adjust VR1 so that the delay time of pulse is 0.9 - 0.95sec during the roulette from the position 1 to the position 2. (see Fig. 1)

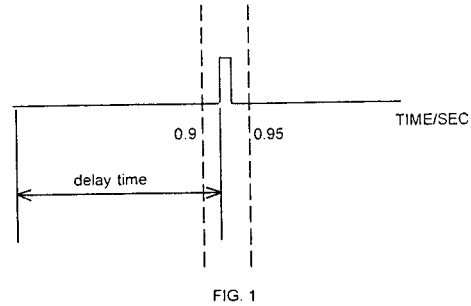
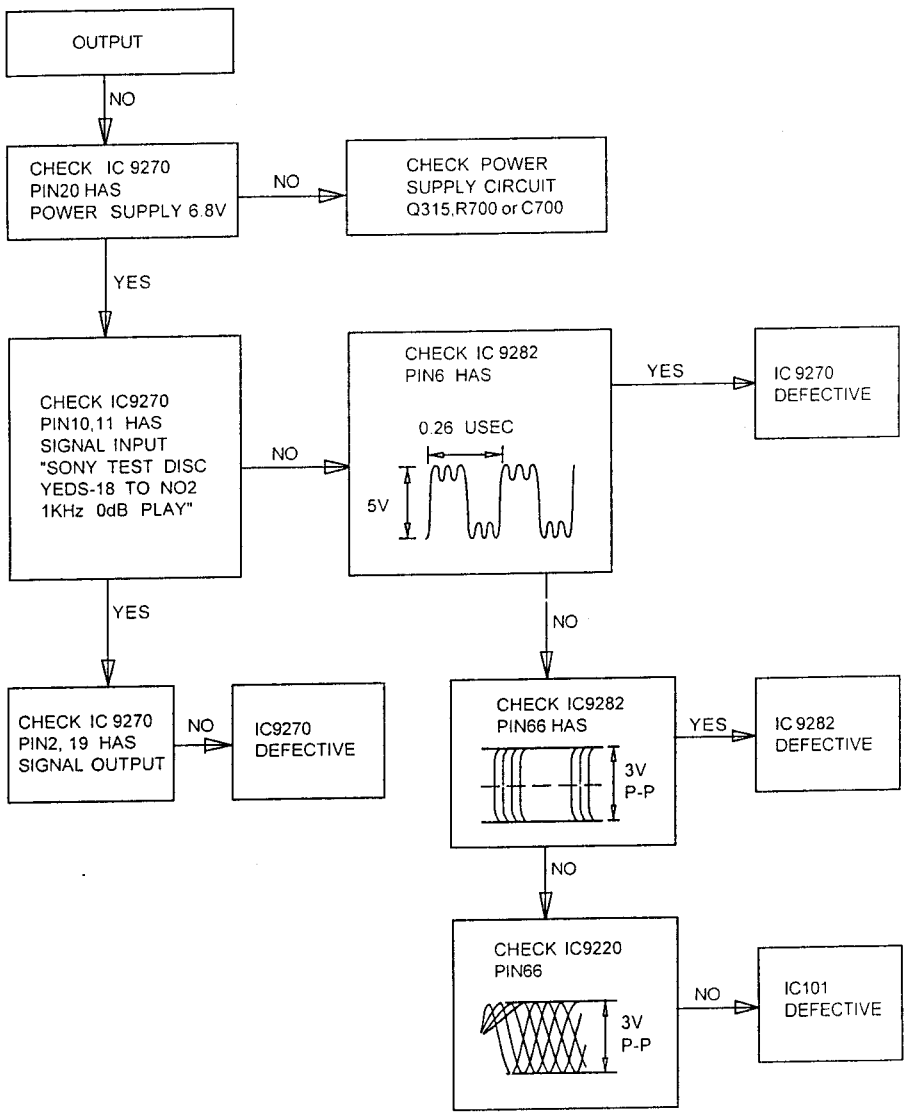


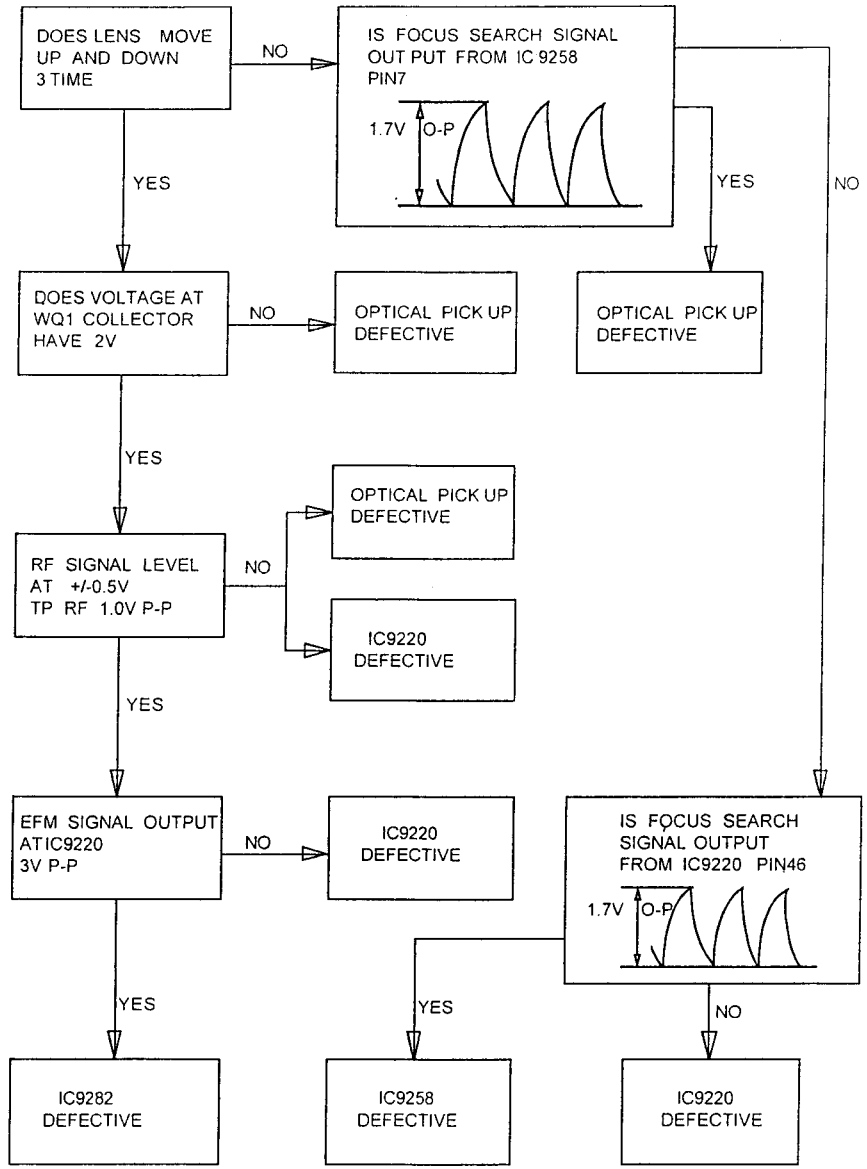
FIG. 1

AUDIO CIRCUIT CHECK



IF LASER IS EMITTING LIGHT

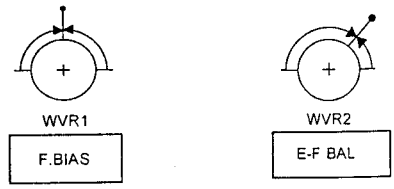
(FOR PCB-3CX)



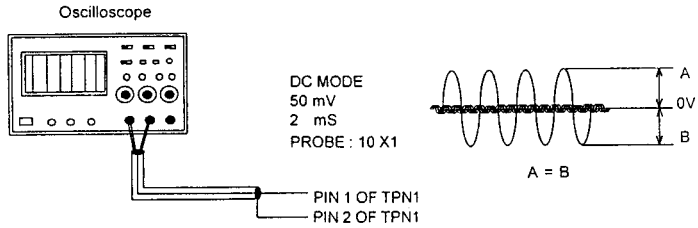
FEHLERSUCHBAUM

CD ADJUSTMENT

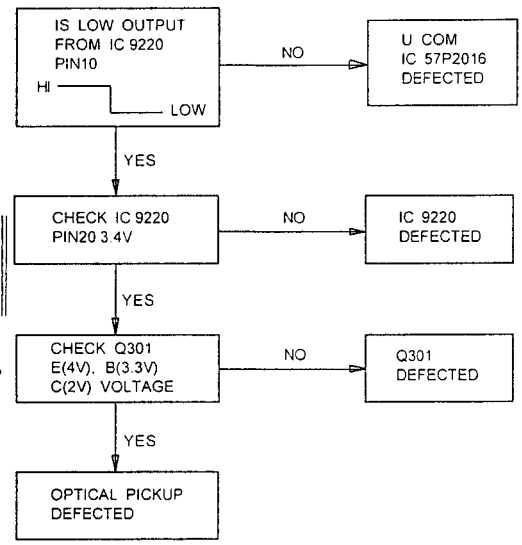
INITIAL SETTING OF ADJUSTMENT POTENTIOMETERS
Before adjusting, preset adjustment potentiometers like below.



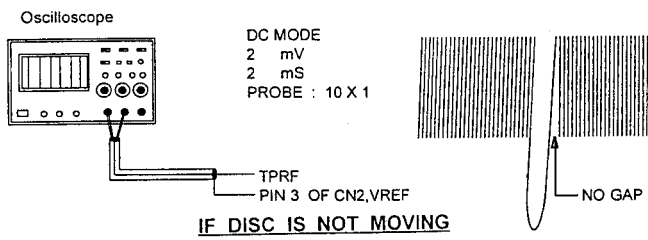
E-F BALANCE ADJUSTMENT
(1) Connect the oscilloscope to TPN1 PIN1 (TE) and PIN 2 (Vef)
(2) Place test disc on turntable.
(3) Adjust WVR2 so that the amplitude above and below the zero DC line becomes equal (amplitude A=B)



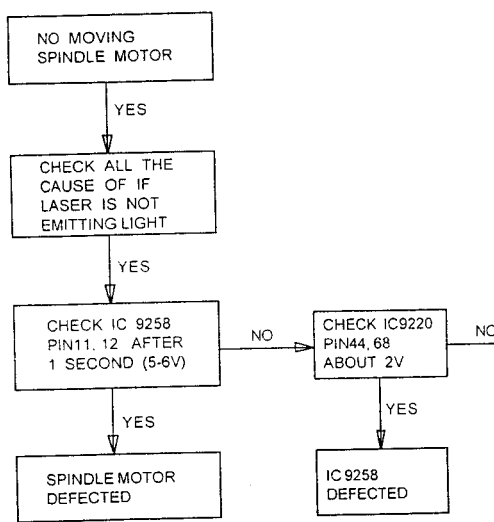
IF LASER IS NOT EMITTING LIGHT



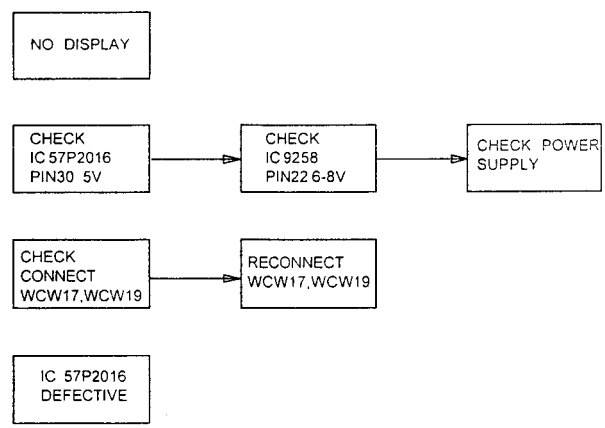
FOCUS BIAS ADJUSTMENT
(1) Power on
(2) Play TCD725 Track No. 10
(3) Connect oscilloscope to TPRF and PIN3 (REF) of CN2.
(4) Adjust RV1 and see the pattern below.



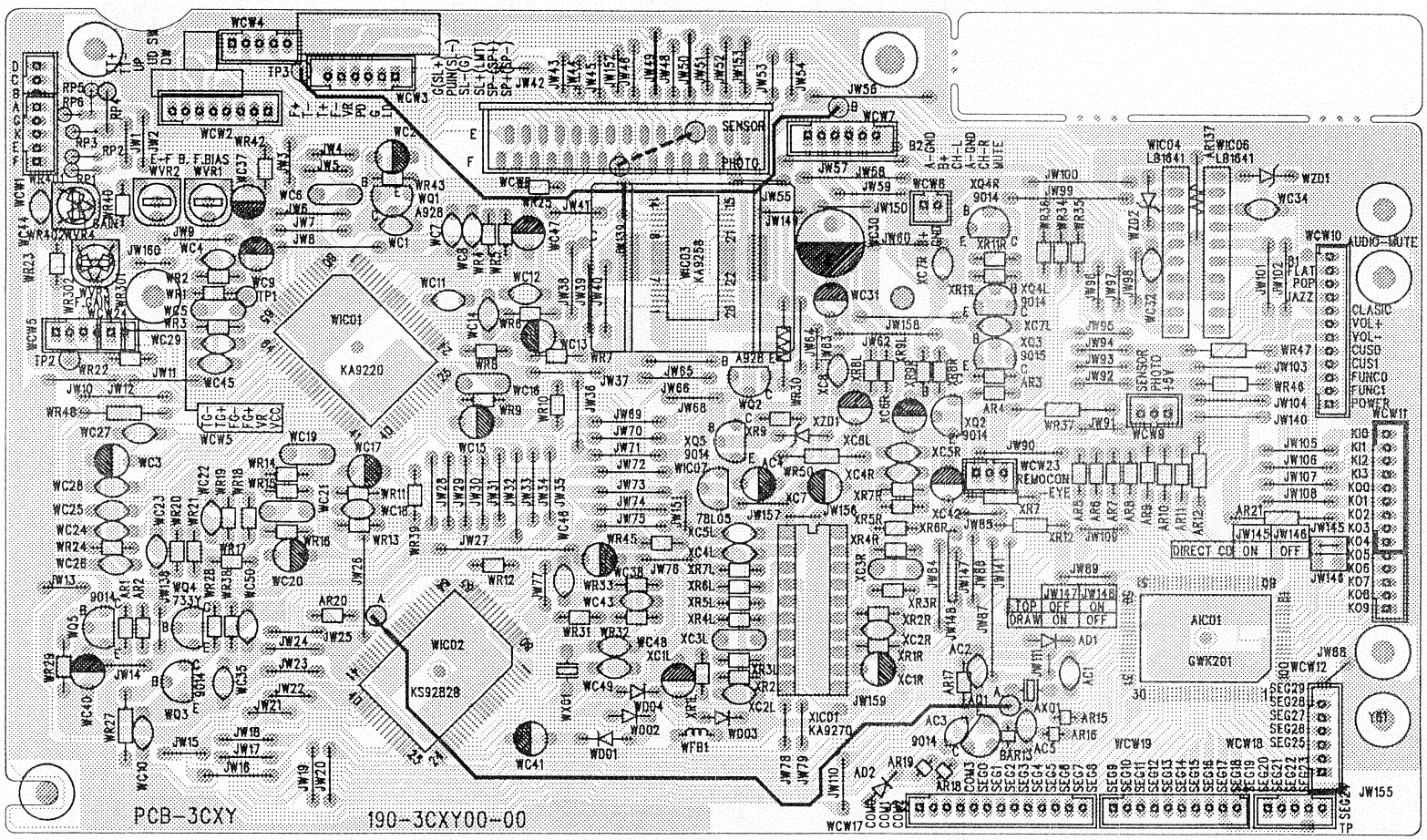
IF DISC IS NOT MOVING



IF DISPLAY IS NOT NORMAL



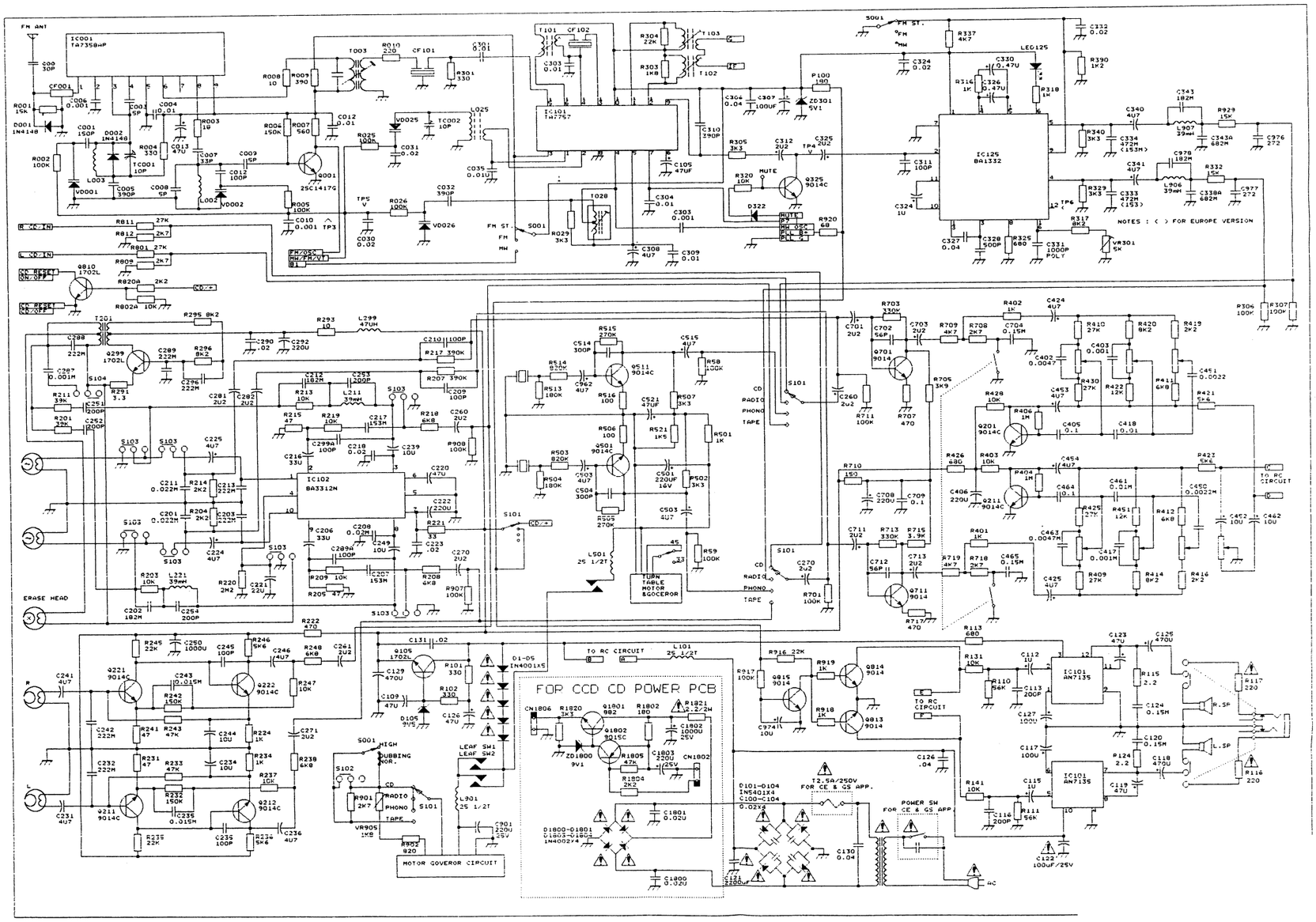
CD COMPONENT LAYOUT



190-3CXY00-00
MAIN BOARD

190-3CT102-00
SENSOR PCB

190-3CXC00-00
CONNECT P.C.B.



LOCATION	2W	5W
P647	470	150
P648	150	470

NOTES: SUBJECT TO CHANGE FOR IMPROVEMENT WITHOUT PRIOR NOTICE.

⚠ DURING SERVICING SHALL BE REPLACED ONLY BY THE SAME TYPE AND SAME RATING.

3CD-CHANGER
(TOP / DRAW TYPE)

3CD-CHANGER
(DRAW TYPE)

3CD--CHANGER(TOP TYPE)
THOMSON & SONY DECK MECHANSIM

WIC01
KA9220
ASSP
(RF+SSP)

WIC02
KS9282B
DSP+DAC

WIC03
KA9258 DRIVER

XIC01
KA9270
AUDIO
FILTER

GWK201
MICOM

LCD

OPEN/CLOSE
WIC06 LB1641

ROULETTE
WIC04 LB1641

NOTE: WR43 10 ohm FOR THOMSON DECK
WR43 22 ohm FOR SONY DECK